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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/854,975	05/14/2001	William A. Polinsky	MTI-31267	9089

31870 7590 07/18/2003

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EXAMINER

UMEZ ERONINI, LYNETTE T

ART UNIT	PAPER NUMBER
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1765

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DATE MAILED: 07/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/854,975

Applicant(s)

POLINSKY ET AL.

Examiner

Lynette T. Umez-Eronini

Art Unit

1765

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 07 July 0203 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
  - (b) ☐ they raise the issue of new matter (see Note below);
  - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: none.Claim(s) objected to: none.Claim(s) rejected: 1-21.Claim(s) withdrawn from consideration: none.

8. ☐ The proposed drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.
10. ☐ Other: \_\_\_\_\_

Continuation of 5. does NOT place the application in condition for allowance because:

Applicant traverses the 112(2) rejection of claims 1, 8-11, 16, and 19-21 as being indefinite because "predetermined depth" and "target depth" are standard terms of the art and have been cited in the claims of over 3600 valid US patents. Applicant's argument is unpersuasive because the claims fail to specify what is a "predetermined depth" and a "target depth."

Applicant traverse the 103 rejection of claims 1-10 and 11-21 as being unpatentable over Doan in view of Laxman and Yao. Applicant argues Doan in view of Laxman fails to teach, terminating the first etch when the first layer has been etched to a predetermined depth which is less than the target depth; etching the first layer in a second etch by containing the first layer with a reactive chemical gas/plasma; and terminating the second etch when the first layer has been etched to the target depth. Applicant's argument is unpersuasive because Yao teaches a method of etching back an oxide layer 30 by employing six etching steps (Abstract), which reads on terminating a first etch when the first layer has been etched to a predetermined depth which is less than a target depth. In step 3, oxide layer 30 is etched using CF<sub>4</sub> and CHF<sub>3</sub> gases and argon for 90±20 seconds (column 5, line 31 - column 6, line 5 and Table 1, column 4) and is etched in a sputter step between 3 and 8 seconds (5 ± 2) in step 4 (column 5, lines 7-10 and Table 1, column 5). Although Yao's etching steps are labeled "Etch High," "Etch Low," "Sputter," and "Plasma," they are all etching processes that differ only in the operational conditions. Since each of these steps is performed at a specified time, then using Yao's steps of etching an oxide layer would result in, etching the first layer in a second etch by contacting the first layer with a reactive chemical gas/plasma; and terminating the second etch when the first layer has been etched, as claimed in the present invention.

Applicant also argues that the teaching of Laxman to indicate that layer thickness is a result effective variable is not relevant in the context of the current method of facet etching since one skilled in the art would not change the thickness of a layer expecting to improve or alter the performance of the current method. Applicant's argument is unpersuasive because Laxman, which teaches, "Purity of the film, thickness, uniformity and deposition rates are some of the strictly controlled parameters to facilitate fabrication of submicron features in a device" (column 2, lines 57-59) is relied upon to teach the thickness of a layer can be changed to be equal a different (in this case a target depth) depth.



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